Claims

1. Method of determining the sympathetic tone including the steps of: measuring an applied stimulation at a threshold value of the stimulation in one or more sympathetic tone-neutral points and measuring an applied stimulation at the same threshold value in one or more sympathetic tone-dependent points.

2. Method according to claim 1, wherein the applied stimulation is provided by means of an applied mechanical stimulation.

3. Method according to claim 2, wherein the applied mechanical stimulation is provided by means of an applied compressive force.

4. Method according to claim 1, wherein the applied stimulation is provided by means of an applied thermal stimulation.

5. Method according to claim 4, wherein the applied thermal stimulation is provided by means of an applied heat or cold source.

6. Method according to claim 1, wherein the applied stimulation is provided by means of an applied radiation.

7. Method according to claim 6, wherein the applied radiation is provided by means of an applied infrared, visible and/or ultraviolet light or combined spectra thereof.

8. Method according to claim 1, wherein the applied stimulation is provided by means of an applied chemical stimulation.

9. Method according to claim 8, wherein the applied chemical stimulation is provided by means of an applied organic or inorganic compound.

10. Method according to any one of the preceding claims, wherein the determination is performed by means of a system for measuring the applied stimulation.

11. Method according to any one of the preceding claims, wherein the measuring of an applied stimulation at a threshold value of the stimulation in one or more sympathetic tone-neutral points is carried out anteriorly on the upper side of the clavicle and/or posteriorly on the spinal column corresponding to TH 10-11.

12. Method according to any one of the preceding claims, wherein the measuring of an applied stimulation at a threshold value of the stimulation is carried out in one or more sympathetic tone-dependent points at one or more locations on the skin which innervationally correspond to the nerve supply to the heart of the sympathetic nervous system.

13. Method according to any one of the preceding claims, wherein the measuring of an applied stimulation at a threshold value of the stimulation in one or more sympathetic tone-dependent points is carried out in one or more of the points: C.V. 17 in the middle of the sternum and/or St 18 between two ribs below the nipple and/or Per 1 between the nipple and the anterior axillary fold and/or on the spinal column corresponding to TH 3-6, where the most sore point of the said points are chosen.

14. Method of quantitative determination of sympathetic tone in a human, said method including:

a) storage of a calibration threshold value and a stimulation threshold value, the calibration threshold value being a quantitative measure of a nociception threshold value in a sympathetic tone-neutral point on a human body and the stimulation threshold value being a quantitative measure of a nociception threshold value in a sympathetic tone-dependent point on the human body, and subsequently;

b) calculation of an indication value of sympathetic tone by comparing the stimulation threshold value with the calibration threshold value, whereby the indication value of sympathetic tone is a measure of the sympathetic tone in the human being.

15. Method according to claim 14, wherein the calibration threshold value and the stimulation threshold value are measured substantially simultaneously.

16. Method according to claim 14 or 15, wherein nociception is induced by means of exposure to compressive force, heat, cold, radiation, chemical stimulation or combinations thereof.

17. Method according to any one of the claims 14-16, wherein a significantly lower nociception threshold value being obtained in a sympathetic tone-dependent point than in a sympathetic tone-neutral point indicates that a person has increased sympathetic tone.

18. Method according to any one or the claims 14-17, wherein the indication value of the sympathetic tone is compared to at least one previously determined indication value of sympathetic tone, said previous value indicating sympathetic tone at an earlier point in time and/or a result of said value.

19. System for measuring the sympathetic tone in a human being, said system including:

a) Memory means for storing a nociception calibration threshold value determined in a sympathetic tone-neutral point on the human body and for storing a nociception stimulation threshold value determined in a sympathetic tone-dependent point on the human body;

b) An electronic circuit programmed to data process the nociception calibration threshold value and the nociception stimulation threshold value so as to obtain the measurement.

20. System according to claim 19 and which further includes user-operated means for applying a discomfort-evoking stimulus to the surface of the human body and user-operated storage means adapted to:

a) store the nociception calibration threshold value resulting from a first user operation;

b) store the nociception stimulation threshold value resulting from a second user operation.

21. System according to claim 20, wherein the means for applying a discomfort-exvoking stimulus is contained in a first unit and where the said electronic circuit is contained in a second unit.

22. System according to claim 21, wherein the first and the second units are adapted to allow wireless communication between the first unit and the second units.

23. System according to claim 20, wherein the means for applying a discomfort-evoking stimulus and the said electronic circuit are integrated in one and the same apparatus.

24. System according to any one of the claims 20-23, wherein the means for applying a discomfort-evoking stimulation are adapted to apply a stimulus which is gradually increased, the storage means being adapted to store a stimulation level at a moment in time corresponding to the first and the second user operation, respectively.

25. System according to claim 24, wherein the applied discomfort-evoking stimulus includes an exposure to compressive force, heat, cold, radiation, chemical stimulation or combinations thereof.

26. System according to claim 25, wherein the compressive force is applied by means of a pressure base (5) or a clamp.

27. System according to any of the claims 19-26, wherein the applied discomfort-evoking stimulus is discontinued at the time of the first or second user operation.

28. System according to claim 27, wherein the contact face (6) of the pressure base (5) is resilient.

29. System according to claim 28, wherein the pressure base (5) contains a liquid, a gel and optionally gas-filled bubbles.

30. System according to any one of the claims 26-29, wherein the area of the contact face (6) is less than 4 cm^2, preferably between 1 and 2 cm^2.

31. System (4) for measuring the sympathetic tone in a human being, said system including a pressure base (5) with a contact face (6) adapted to exert an outer compressive force on the human body, a sensor (7) for measuring the compressive force exerted by the pressure base (5) on the body, an electronic circuit adapted to store a first measured compressive force and a second measured compressive force, respectively, and to calculate a read-out value as an expression of the ratio between the first measured compressive force and the second measured compressive force and wherein the system includes a read-out unit (8) for displaying the read-out value.

32. System according to claim 31, wherein the pressure base (5) and the sensor (7) are integrated in a first unit and wherein the said electronic circuit is integrated in a second unit.

33. System according to claim 32, wherein the first and the second units are adapted such to allow wireless communication between the first unit and the second unit.

34. System according to claim 31, wherein the pressure base (5), the sensor (7) and the said electronic circuit are integrated in one and the same apparatus.

35. System according to any one of the claims 31-34, wherein the contact face (6) of the pressure base (5) is resilient.

36. System according to claim 35, wherein the pressure base (5) contains a liquid, a gel and optionally gas-filled bubbles.

37. System according to any one of the claims 31-36, wherein the area of the contact face (6) is less than 4 cm^2, preferably between 1 and 2 cm^2.

38. System according to one of the claims 31-37, wherein the sensor (7) is a piezoresistive force sensor.

39. System according to one of the claims 31-38, said system being hand-held and supplied with power by one or more batteries.

40. System according to one of the claims 31-39, wherein the read-out unit is an electronic display (8).

41. System according to one of the claims 31-40, wherein the electronic circuit is adapted to determine the read-out value as one of a number, eg. four, discrete read-out values (0, 1, 2, 3), the ratio between the first measured value and the second measured value being allocated a discrete read-out value (0, 1, 3, 4) displayed on the read-out unit (8).

42. System according to claim 41, wherein the discrete read-out value (0, 1, 2, 3) is non-proportional to the ratio between the first measured value and the second measured value.

43. System according to one of the claims 31-42, wherein the electronic circuit is adapted to calculate the first measured value as an average of a number of measured values and calculate the second measured value as an average of a number of measured values.

44. Use of a system for applying and measuring a stimulation for determining the sympathetic tone including the steps of: measuring an applied stimulation at a threshold value of the stimulation in one or more sympathetic tone-neutral points and measuring an applied stimulation at the same threshold value of the stimulation in one or more sympathetic tone-dependent points.

45. Use according to claim 44, wherein the measuring of an applied stimulation at a threshold value of the stimulation in one or more sympathetic tone-neutral points is carried out on the upper side of the clavicle and/or on the spinal column corresponding to TH 10-11.

46. Use according to claim 44 or 45, wherein the measuring of an applied stimulation at a threshold value of the stimulation is carried out at one or more points on the skin, said points innervationally corresponding to the nerve supply to the heart from the sympathetic nervous system.

47. Use according to any one of the claims 44-46, wherein the measuring of an applied stimulation at a threshold value of the stimulation in one or more sympathetic tone-dependent points is carried out in one or more of the points: C.V. 17 in the middle of the sternum and/or St 18 between two ribs below the nipple and/or Per 1 between the nipple and the anterior requirement and/or on the spinal column corresponding to TH 3-6, where the most sore point of the said points is chosen.

48. Use of measurement of nociception for determining the sympathetic tone.